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DEVELOPMENTS IN ILLINOIS AND INDIANA IN 1947¹

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ABSTRACT

In all, 2,727 wells were drilled for oil and gas in Illinois and Indiana in 1947 as compared with 2,870 in 1946, a decrease of 5 per cent. Total oil production decreased 11 per cent from 82,128,000 barrels in 1946 to 72,900,000 barrels in 1947. Wildcat drilling increased from 760 completions in 1946 to 792 completions in 1947. Forty-four new pools and approximately 76 extensions were discovered in the two states in 1947 as a result of wildcat drilling.

The new production found in 1947 was almost entirely from Mississippian strata. Little deep drilling was done, and no major amounts of oil were produced from strata below the Mississippian. A "Trenton" pool, Woburn South, was discovered in Bond County, Illinois, which had six producing wells at the end of the year. Drilling is expected to continue in 1948 at nearly the same rate as in 1947.

INTRODUCTION

The area discussed in this paper includes Illinois and Indiana. Most of the oil and gas drilling was done in the southern part of Illinois and the southwestern part of Indiana. Oil and gas drilling in the two states decreased 5 per cent, from 2,870 completions in 1946 to 2,727 completions in 1947. Oil production decreased 11 per cent, from 82,128,000 barrels in 1946 to 72,900,000 barrels in 1947. Wildcat drilling increased from 760 completions in 1946 to 792 completions in 1947. Forty-four new pools and approximately 75 extensions to old pools were discovered in the two states in 1947 as a result of wildcat drilling.

The new production discovered in 1947 was largely from Mississippian strata. Of the 44 new pools discovered, three were in Pennsylvanian sandstones, one was in the "Trenton" (Ordovician) limestone, and the remaining 40 were in Mississippian sandstones and limestones; of these, 18 were in Chester sandstones and 22 were in Lower Mississippian limestone or sandstones.

Little deep drilling was done and no major amounts of oil were produced from strata below the Mississippian. The one new pre-Mississippian pool, Woburn South in Bond County, Illinois, had six producing wells in the "Trenton" at the end of the year.

Drilling is expected to continue during 1948 at nearly the same rate as in 1947.

The details of development are discussed separately for each state.

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TABLE I
DISCOVERY WELLS OF NEW POOLS IN ILLINOIS IN 1947

Pool	County	Company and Farm	Location	Total Depth (Feet)	Producing Formation	Depth to Top (Feet)	Initial Production (Barrels) ^a
1. Ab Lake	Gallatin	Sobko, J. Lynch 1	32-S-10E	2,700	Renault	2,655	149
2. Boman East	Lawrence	S. Zentgraf, H. W. Mahrenholz 1	20-N-10W	1,904	McClosky	1,882	100; 175
3. Berryville	Wabash	British American, A. Higgins 1	30-N-14W	2,803	McClosky	2,801	223
4. Bible Grove North	Edingham	Gilliam & Aspin, E. Adams 1	10-N-7E	2,878	McClosky	2,868	102; 30
5. Bone Gap South	Edwards	Inland Producers, G. Harms 1	19-S-14W	3,126	Cypress	2,712	408; 80
6. Burnt Prairie South	White	British American, Duckworth 1	7-S-9E	3,552	Lower Ohara	3,417	75
7. Centerville North	White	F. Heldt, C. & M. Endicott 1	28-S-0E	2,433	Bethel	2,407	38; 50
8. Concord Central	White	W. O. Allen, Ackerman	20-S-10E	2,438	Aux Vases	2,400	135
9. Cottonwood	Gallatin	Nat'l. Assoc. Pet., J. McElravy 1	47-S-0E	2,617	Tar Springs	2,614	0
10. Divide East	Jefferson	Nat'l. Assoc. Pet., D. McElravy 1	13-S-4E	2,866	Aux Vases	2,837	100; 17
11. Elberle	Edingham	Nat'l. Assoc. Pet., A. Jacobs 1	24-N-0E	2,884	McClosky	2,823	118; 200
12. Elliottstown	Edingham	Gulf (Schock) J. M. Schultz 1	32-N-7E	3,200	Rosiclare	2,730	61; 20
13. Fairfield East	Wayne	Tuley & Carter, A. Martin 1	4-2-S-8E	3,493	Aux Vases	3,478	16
14. Half Moon	Wayne	Collins Bros., M. Flowers 1	27-S-0E	3,493	McClosky	3,353	60; 40
15. Helena	White	For & Fox, E. Bass 1	11-S-13W	2,300	Waltersburg	1,776	12; 100
16. Herald East	White	I. Reznik, H. Grant 1	13-S-0E	2,400	Waltersburg	2,201	196
17. Hunt City South	Jasper	Robinson & Puckett, G. Dillman 1	18-N-11E	2,793	McClosky	2,436	10; 6
18. Iowa South	Clay	Robinson & Puckett, B. Colclasure 1	11-N-1E	2,836	McClosky	2,581	80; 40
19. Iuka	Marion	J. M. Gilliam, H. Ebe 1	14-N-5E	2,772	Ste. Genevieve	2,702	232; 100
20. Kenner North	Clay	Nat'l. Assoc. Pet., N. O. Golden 1	17-N-0E	3,038	Bethel	2,758	87
21. Kenner West	Clay	Phillips Pet., E. Spiker 1	23-N-5E	3,016	Cypress	2,585	95; 70
22. Lexington	Wabash	F. J. Fleming et al., W. Berberich 1	20-S-14W	3,391	McClosky	2,966	250
23. Massillon South	Edwards	Magnolia, L. W. Wilson 1	18-S-10E	2,212	Lower Ohara	3,313	4; 1
24. Miletus	Marion	Nat'l. Assoc. Pet., G. Boye et al. 1	21-N-4E	3,016	Aux Vases	3,131	38; 32
25. Newton West	Jasper	McCullough Drilling, Winterrowd 1	10-N-0E	3,047	McClosky	2,909	8; 18
26. Stanford West	Clay	Nat'l. Assoc. Pet., O. Hickle 1	33-N-7E	428	McClosky	3,031	305
27. Westfield East	Clark	Van Tarble, Tarble Bros. 3	21-N-11W	3,167	Pennsylvanian	418	50
28. Wolburn South	Bond	L. Horton, W. Korumdz 1	21-N-2W		"Trenton"	3,151	70

^a Oil and water.



TABLE II
DISCOVERY WELLS OF EXTENSIONS TO POOLS IN ILLINOIS IN 1947

Pool	County	Company	Farm	Location	Total Depth	Producing Formation	Top of Pay	Initial Production Bbls. a
1. Albion Consol.	Edwards	N. Redwine	McKinley-Walker Comm. 1	31-S-14W	3,198	McClosky	3,150	25; 1
2. Albion East	Edwards	Wm. Bell	F. Fieber 1	31-S-14W	3,231	Rosclaire	3,120	42; 30
3. Beaver Creek South	Clinton	A. M. Fowley & A. Jackson	Burkett 1	5-3N-2W	1,150	McClosky	3,168	5; 5
4. Beman East	Lawrence	S. Zanettis	Lindsay 1	20-3N-10W	1,997	Bethel	1,147	2; 20
5. Bible Grove East	Clay	Calvert & Willis	L. Shields 1	23-S-N-7E	2,953	Aux Vases	1,809	
6. Bible Grove East	Clay	N. V. Duncan	A. A. Harmon Heirs 1	27-S-N-7E	2,978	Rosclaire	1,881	16; 20
7. Bone Cap South	Edwards	E. Witt (D. Miller)	F. S. Racter 1	18-S-14W	3,191	Aux Vases	2,787	115; 50
8. Bonpas	Richland	Gilliam et al.	J. Provines 1	34-3N-14W	3,136	McClosky	3,058	76; 15
9. Boyleston Consol.	Wayne	B. J. Taylor et al.	A. R. Burkett 1	18-S-7E	3,345	McClosky	3,128	30; 180
10. Boyleston Consol.	Wayne	Robinson & Puckett	Henson Cons. 1	30-S-8E	3,453	Aux Vases	3,155	46; 150
11. Browns	Wabash	Cherry & Kidd	Gray-Tanquary 1	27-S-14W	2,903	Rosclaire	3,259	30; 60
12. Browns South	Edwards	Lynn, Calvert & Willis	A. J. Messman 1	9-2S-14W	3,075	McClosky	2,958	41; 15
13. Calhoun	Richland	O. Weston	E. O. Kirk 1	29-3N-10E	3,108	Bethel	2,828	11
14. Calvin North	White	D. Miller Drig.	Johnson 1	6-4S-11E	3,204	Aux Vases	3,134	140
15. Cisne	Wayne	N. Redwine	W. Lusk 1	3-1S-7E	3,310	McClosky	3,048	42; 40
16. Clay City Consol.	Wayne	Robinson & Puckett	M. Shackleford 1	2-1N-8E	3,091	Lower Ohara	3,151	17; 33
17. Clay City Consol.	Wayne	D. Slape et al.	F. Pettijohn 1	27-2N-7E	2,986	McClosky	3,072	200
18. Clay City Consol.	Wayne	Tuley & Carter	S. O. Hosselton 1	29-2N-8E	3,010	Aux Vases	2,978	95
19. Clay City Consol.	Wayne	W. Bell	J. O. Sandlin 1	35-2N-8E	3,087	Rosclaire	3,003	65; trace
20. Clay City Consol.	Clay	Robinson & Puckett	C. T. Smith 1	35-3N-8E	3,074	McClosky	3,070	72
21. Clay City Consol.	Gallatin	Mealy & Wolfe	D. Perardi 1	7-1S-8E	3,135	Aux Vases	2,882	73
22. Cottonwood	Edwards	G. Wickham	L. M. Mills 1	22-S-14W	3,331	Aux Vases	3,113	110
23. Dowels	Washington	W. O. Allen	Mason-Schroeder 1	18-3S-1W	3,009	Tar Springs	2,289	10,500,000 cu. ft.
24. Eving	Franklin	Sohio	J. L. Kasban 1	5-5S-3E	1,336	Bethel	2,751	32
25. Geff West	Wayne	Tuley & Carter	Bosserman 1	18-S-8E	2,841	Cypress	1,185	5,200,000 cu. ft.
26. Geff West	Wayne	A. J. Slagter	J. C. Stanley 1	4-1S-7E	3,107	Aux Vases	2,830	117
27. Geff West	Wayne	Nation Oil	W. T. Haynes 1	10-S-7E	3,172	Aux Vases	3,083	80
28. Grayville West	White	B. Lambert	J. W. Cisne 1	27-S-10E	3,110	Aux Vases	3,105	42; 3
29. Half Moon	Wayne	George & Wratber	Robinson Heirs 1	23-S-10E	2,871	Cypress	3,098	35; 25
30. Herald	White	Central Pipe Line	W. C. Turner 1	25-S-0E	3,375	Rosclaire	2,831	63
31. Herald	White	B. M. Heatb	T. Poole 1	32-S-0E	2,966	Lower Ohara	3,340	60; 40
32. Herald East	White	Oil Mgt.	M. E. Austin 1	18-S-10E	2,930	Degonia	1,920	121; 40
33. Hoosier North	Clay	Evans & Barrow	Eubanks 1	35-S-N-7E	2,960	Aux Vases	2,918	89
34. Hoosier North	Clay		L. Stanley 1			McClosky	2,853	71; 15

TABLE II—(continued)

Pool	County	Company	Farm	Location	Total Depth	Producing Formation	Top of Pay	Initial Production Bbls. ^a
35. Johnsonville Consol.	Wayne	Nat'l. Assoc. Pet.	Z. H. Grinstead ¹	25-N-6E	3,213	McClosky	3,208	134
36. Johnsonville West	Wayne	Puritan Drig.	B. Spicer ¹	24-N-5E	2,973	Aux Vases	2,954	200 ¹ 65
37. Johnsonville West	Wayne	Taylor	B. Watkins ¹	26-N-5E	3,087	McClosky	3,064	120
38. Junction North	Gallatin	C. E. Skiles	Stinson ¹	9-08-0E	2,012	Pennsylvanian	1,429	17
39. Junction North	Wabash	Ill.-Mid-Continent	Delta Drig.	25-S-14W	1,587	Pennsylvanian	1,564	40
40. Kenner Consol.	Clay	A. J. Slagter	Kruiz ¹	34-S-9E	2,874	Rosiclare	2,896	15
41. Kenner	Clay	Nat'l. Assoc. Pet.	E. Spiker ¹	12-N-5E	2,087	Aux Vases	2,875	2
42. Kenner North	Wabash	Arvin Drig.	C. E. Alka ¹	35-2N-13W	2,803	Rosiclare	2,779	20
43. Lancaster East	White	Nation Oil	C. E. Haeley ¹	20-3N-9E	2,750	McClosky	2,662	150
44. Lillyville	Effingham	Nat'l. Assoc. Pet.	J. J. Schneiderjan ¹	6-8N-7E	3,478	McClosky	3,377	43
45. Maud North	Wabash	Calvert & Willis	A. Garwood ¹	16-S-13W	2,416	Bethel	2,403	20
46. Maud North	Wabash	Hayes & Wolfe	L. Peter A-1	20-S-13W	2,068	Bethel	2,586	34
47. Maud North	White	J. H. Gilliam	W. Hines ¹	36-S-10E	2,039	Rosiclare	2,859	32
48. Maunie North	Wayne	Nat'l. Assoc. Pet.	E. Tidball ¹	23-S-8E	3,107	Paint Creek	2,812	97
49. Mt. Erie South	Wayne	Magnolia	F. E. Henning ¹	19-S-14W	2,188	Lower Ohara	3,097	113
50. New Harmony-Griffin Consol.	White				3,127	Rosiclare	3,014	15
51. Noble	Richland	Calvert & Willis	Yunker et al. ¹	14-3N-8E	3,090	Rosiclare	3,002	84
52. Noble North	Richland	P. Fulk	T. Dresser ¹	36-4N-9E	2,681	Cypress	2,554	18
53. Olney East	Richland	George & Wrather	M. Leaf ¹	13-4N-10E	3,062	McClosky	3,068	23
54. Passport	Clay	T. B. Dicksen	Kuensler ¹	2-4N-8E	3,025	McClosky	3,019	50
55. Roland	Gallatin	C. E. Brehm	J. W. Oliver et al. ¹	29-S-8E	2,115	Watersburg	2,084	30
56. Rural Hill	Hamilton	B. Taylor	Wilson ¹	30-6S-0E	3,192	Aux Vases	3,180	71
57. Sailor Springs Consol.	Clay	Nat'l. Assoc. Pet.	S. Lee ¹	15-3N-7E	2,990	McClosky	2,949	84
58. Sailor Springs Consol.	Clay	E. A. Obering	Armstrong ¹	20-3N-7E	2,092	McClosky	2,078	105
59. Salem	Marion	Schally & Sivka	R. N. Davis ¹	21-N-2E	1,928	Bethel	1,918	51
60. Salem	Marion	B. Taylor et al.	H. J. Sebastian ¹	28-2N-4E	1,935	Bethel	1,908	75
61. Shattuc	Clinton	F. E. Turner	R. Mann ¹	28-2N-4E	1,295	Cypress	1,286	11
62. Shelbyville	Shelby	P. Doran	R. Manning ¹	14-N-4E	2,084	Aux Vases	1,998	11
63. Storns	White	Asbland & Buchman	A. Mann ¹	18-6S-10E	3,002	McClosky	3,027	69
64. Trumull	White	Pure	M. E. Husk ¹	20-5S-9E	3,352	(Aux Vases)	3,288	50
65. Trumbull	White	W. E. Witt	J. W. Williams ¹	6-S-5E	3,382	McClosky	3,288	31
66. Westfield East	Clark	F. Hessler	B. Buckler ¹	36-N-14W	400	Pennsylvanian	3,453	48
67. Willow Hill Consol.	Jasper	Robinson & Puckett	C. J. McKee ¹	2-N-20E	2,597	Rosiclare	2,553	87
68. Woburn South	Pond	L. Norton	L. F. Stocklin ¹	16-N-3W	3,179	"Tronton"	3,158	45
69. Woodlawn	Jefferson	C. E. Townsend	O. Watkins et al. ¹	25-2S-1E	2,036	Bethel	2,026	72

^a Oil and water.

TABLE III. DISCOVERY WELLS OF ADDITIONAL PRODUCING ZONES IN POOLS IN ILLINOIS IN 1947

Pool	County	Company and Farm	Location	Total Depth (feet)	Producing Formation	Depth to Top (feet)	Initial Production (Barrels) ^a
1. Albion East	Edwards	W. Bell, F. Fieber 1	31-2S-14W	3,231	Rosiclare ^b	3,126	43; 30
2. Beman East	Lawrence	S. Zanetti, Lindsay 1	20-3N-10W	1,907	Aux Vases ^b , Rosiclare	1,800; 1,860	43; 20
3. Berryville	Wabash	Phillips Pet., Fite 1	35-2N-14W	3,013	Rosiclare ^b	2,911	150; 2
4. Bible Grove East	Clay	Calvert & Willis, L. Shields 1	23-5N-7E	2,953	McClosky	2,878	10; 20
5. Bible Grove East	Clay	N. V. Duncan, A. A. Harmon Heirs 1	27-5N-7E	2,978	Aux Vases ^b	2,788	115; 50
6. Bible Grove North	Edingham	Superior, C. Kluthe 1	10-6N-7E	2,887	Cypress ^b	2,533	54; 14
7. Bible Grove North	Edingham	Texas, A. J. Bloemker 1	10-6N-7E	2,944	Rosiclare	2,835	7; 23
8. Bible Grove South	Clay	W. Duncan, Harden-Welster Comm. 1	20-5N-7E	2,758	Cypress	2,500	26; 2
9. Bone Gap	Edwards	Cities Services, L. Thread "A" - 1	18-1S-11E	3,316	Rosiclare	3,168	99
10. Bone Gap South	Edwards	Calvert & Willis, Briggs 1	19-1S-14W	3,090	Aux Vases	3,015	125
11. Bone Gap South	Edwards	E. Witt (D. Miller), F. S. Raester 1	18-1S-14W	3,191	McClosky	3,038	76; 15
12. Browns	Edwards	Potter, Reeves, Lobell; Bedell 1	34-1S-14W	3,010	Rosiclare ^b	2,973	225; 10
13. Browns	Wabash	Cherry & Kidd, Gray-Newman, 5	4-2S-14W	3,031	Tar Springs ^b	2,964	90; 40
14. Browns	Wabash	Lynn, Calvert & Willis, A. J. Messman 1	9-2S-14W	3,075	Aux Vases ^b	2,950	11
15. Calvin North	White	D. Miller Drig., Johnson 1	6-4S-11E	3,204	Lower Ohara	3,048	42; 40
16. Concord Central	White	Great Lakes Carbon, Calvert 1	4-7S-10E	3,053	Cypress ^b , McClosky	2,607; 2,970	91; 9
17. Concord North	White	C. Wickham, A. Willitt 1	10-6S-10E	3,071	Lower Ohara ^b	3,033	80
18. Cowling	Edwards	W. O. Allen, G. Broster 1	34-2S-14W	2,916	Palatine	2,901	245
19. Elberts	Washington	C. O. Allen, J. K. Keady 1	43-3N-40E	1,336	Cypress	1,185	5,200,000 cu. ft.
20. Elberts	Edingham	Hennrich & Gher, H. E. Perkins 1	34-6N-40E	2,383	Cypress	2,473	32; 10
21. Elberts	Edingham	W. O. Allen, Broster 1	33-2S-10E	3,346	Aux Vases	3,209	20; 5
22. Epworth East	White	Sohio, Bossertman 1	5-2S-5E	3,127	Tar Springs ^b	2,359	500
23. Eving	Franklin	A. J. Slagter, J. R. Barnard 1	5-2S-5E	3,114	Aux Vases ^b	2,830	117
24. Geff West	Wayne	A. J. Slagter, Evans 1	4-1S-7E	3,105	McClosky ^b	3,109	77; 80
25. Geff West	Wayne	S. C. Yingling, Sanders 1	20-3S-14W	3,172	Rosiclare	3,202	25; 30
26. Grayville	Wayne	George & Wraether, W. C. Turner 1	23-1S-9E	3,172	Wabashburg	3,202	153
27. Half Moon	White	B. M. Heath, M. E. Austin 1	32-6S-9E	3,205	Rosiclare	3,340	60; 40
28. Herald East	White	C. E. Skiles, Williams 1	13-7S-9E	2,914	Tar Springs	1,950	60; 20
29. Herald East	Gallatin	J. Rezmik, C. Glover 1	24-7S-9E	3,093	Aux Vases	2,397	20; 20
30. Hoosier North	Clay	J. W. Rudy, P. W. Bateman 1	26-5N-7E	2,505	Cypress	2,560	104
31. Hoosier North	Clay	Evans & Barrow, J. Brooks Comm. 1	35-5N-7E	2,903	Lower Ohara ^b	2,881	20
32. Hoosier North	Clay	Nat'l Assoc. Pet., C. Wattles 1	35-5N-7E	2,903	McClosky	2,881	24
33. Inman	Gallatin	C. C. Clark, Daily 2	11-8S-10E	2,932	Pennsylvanian	2,801	24
34. Inman	Gallatin	Coy & Ashland, Foster 1	19-8S-9E	2,360	Hardinburg	934	25
35. Inman North	Gallatin	Coy & Ashland, Foster 2	11-8S-9E	2,324	Cypress	2,310	24; 2
36. Inman North	Gallatin	Coy & Ashland, Foster 3	11-8S-9E	2,545	Tar Springs ^b	2,177	50
37. Inman North	Gallatin	Kingwood, Schiff 1	21-8S-9E	2,957	Palatine ^b	2,177	52; 35
38. Junction	Gallatin	C. E. Skiles, Stinson 1	9-9S-9E	2,912	Pennsylvanian	1,915	32; 17
39. Junction	Gallatin	Delta Drig., Ingletton 1	34-8S-9E	1,587	Pennsylvanian	1,420	17
40. Junction North	Clay	A. J. Slagter, C. Tackitt 1	36-3N-5E	2,987	Rosiclare	1,564	40
41. Kenner	Clay	Nat'l Assoc. Pet., E. Spiker 1	12-3N-5E	2,803	Aux Vases	2,875	65; 2
42. Kenner North	Clay	Nat'l Assoc. Pet., Theobald 4-A	17-3N-6E	3,041	McClosky	2,770	20; 20
43. Kenner North	Clay	Phillips Pet., Colclasure 4	23-3N-5E	3,047	McClosky	2,964	308
44. Kenner West	Clay	Phillips Pet., Randall 1	23-3N-5E	3,006	Hethelb	2,860	38; 71
45. Kenner West	Walush	Nu-Enamel, A. H. Barnes 1	23-3N-5E	2,854	Lower Ohara	2,703	241; 50
46. Lancaster Central	Walush	Arvin Drig., E. Alka 1	7-1N-13W	2,815	McClosky ^b	2,739	108
47. Lancaster Central	Walush	W. H. Wright, Walters 1	35-2N-12W	1,823	Rosiclare	2,808	56; 6
48. Lancaster East	Walush	Ill.-Mid-Continent, T. Grundon 1	19-7N-14W	1,823	Rosiclare	2,662	150
49. Main	Crawford	Hayes & Wolfe, L. Peter "A" - 1	35-1S-13W	2,308	Cypress	1,817	20; 2
50. Maud	Walush	Sum, H. Kaiser 2	20-1S-13W	2,939	Rosiclare	2,287	200
51. Maud North	Walush	J. H. Gilliam, Slemaker 1	16-4N-4E	2,160	Rosiclare	2,859	32; 1
52. Maunle North	White	Sohio, J. W. Telford 2	23-7S-10E	3,125	Rosiclare	2,152	101; 10
53. Milnetus	Marion	Snyder Wyoming, C. D. Reddy 2	23-7S-10E	2,418	McClosky ^b	2,347	16
54. Milnetus	Marion	B. F. Spowils, W. H. Benson 2	23-7S-10E	2,936	Lower Ohara	2,789	47
55. New Haven West	Marion	T. M. Monney, J. N. Klein 2	18-4N-10W	2,947	McClosky	1,994	26; 2
56. Rolandville (gas)	Lawrence	Nat'l Assoc. Pet., J. N. Klein 2	9-3N-7E	1,570	McClosky	1,551	25; 100
57. Rolandville (gas)	Clay	E. Witt, J. W. Williams 1-A	27-2N-1W	1,438	Lower Ohara	2,943	200
58. Sanford Springs Consol.	Clay	H. Ames et al., Thompson 1-A	33-3N-7E	3,382	Rosiclare ^b	2,978	44
59. Sanford West	Clay	R. Bartnes et al., West Frankfort Packing Co. 1-A	0-5S-9E	2,731	McClosky	2,978	48; 12
60. Sanford West	Clay	R. Bartnes et al., West Frankfort Packing Co. 1-A	30-7S-3E	2,731	Aux Vases	2,703	13
61. West Frankfort South	Franklin	M. H. Richardson, Franklin Co. Coal 1	14-5S-2E	2,786	Rosiclare	2,827	243+trace
62. West Frankfort South	Franklin	N. Redwine, Laney et al. 1	24-2S-1E	2,217	Rosiclare	2,779	11; 1
63. West Frankfort South	Franklin					2,195	7+trace
64. Whittington West	Jefferson						
65. Woodlawn	Jefferson						

^a Oil and water.^b Dual completion.^c Triple completion.

ILLINOIS

BY ALFRED H. BELL

In Illinois, 2,046 wells were completed for oil and gas in 1947, a decrease of 13 per cent from 1946. Drilling resulted in 1,071 oil wells, 9 gas wells, and 966 dry holes. Of the 536⁴ wildcat wells drilled, 28 discovered pools and 69 discovered extensions to pools (Tables I and II). In addition, 65 wells, most of which can not be designated properly as exploratory wells, discovered additional producing zones in known producing areas (Table III).

The geographic pattern of drilling followed that prevalent in recent years, the greatest number of completions by counties being in Wabash (301) followed by Wayne (253), White (223), and Clay (196) counties. Wells in Clay County averaged 160 barrels initial production compared with a state average of 100 barrels.

The pools with the greatest numbers of well completions in 1947 were as follows: Clay City Consolidated, 120 completions; New Harmony Consolidated, 63 completions; Willow Hill Consolidated, 63 completions; Allendale, 61 completions; and Sailor Springs Consolidated, 52 completions.

Total oil production in Illinois in 1947 was 66,459,000 barrels as compared with 75,297,000 barrels in 1946, a decrease of 13 per cent. Average daily production in 1947 was 182,000 barrels. Average daily production, by months during the year varied from 193,000 barrels in January to 175,000 barrels in August and November.

EXPLORATORY DRILLING

As may be noted on the map (Fig. 1) the new pools discovered were all within short distances of previous production so that no new regions were opened for exploration and development during the year. One of the new pools, Kenner West in Clay County, Illinois (No. 21, Fig. 1) is located on a structure which was mapped on outcropping Pennsylvanian strata and recommended for testing by the Illinois Geological Survey in *Report of Investigations 40*, published in 1936. At the end of the year, this pool had 21 wells producing from the Cypress and Bethel sandstones at approximate average depths of 2,570 feet and 2,705 feet, respectively. The pool had an approximate total production at the end of the year of 225,000 barrels. This was the most oil produced by any one of the 1947 discoveries. Kenner North, with 22 wells and a total production to the end of the year of 222,000 barrels, was a close second.

A list of some of the most noteworthy dry holes completed in 1947 is given in Table IV. Little deep testing was done. A well in Jersey County (Table IV, No. 15) located on the Lincoln fold which is adjacent to the Cap au Grés fault was drilled into the Lamotte sandstone (basal Cambrian). A well in Pike County,⁵ not listed in Table IV because it was not reported complete at the end of 1947, was drilled to the pre-Cambrian granite on top of the Pittsfield-Hadley anticline.

⁴ This figure does not include wells which tested additional producing zones in producing areas classified by Lahee as deeper-pool tests and shallower-pool tests.

⁵ Panhandle Eastern Pipe Line Company's Mumford No. 1, NE. $\frac{1}{4}$, NE. $\frac{1}{4}$, NW. $\frac{1}{4}$, Sec. 21, T. 5 S., R. 4 W., Pike County.

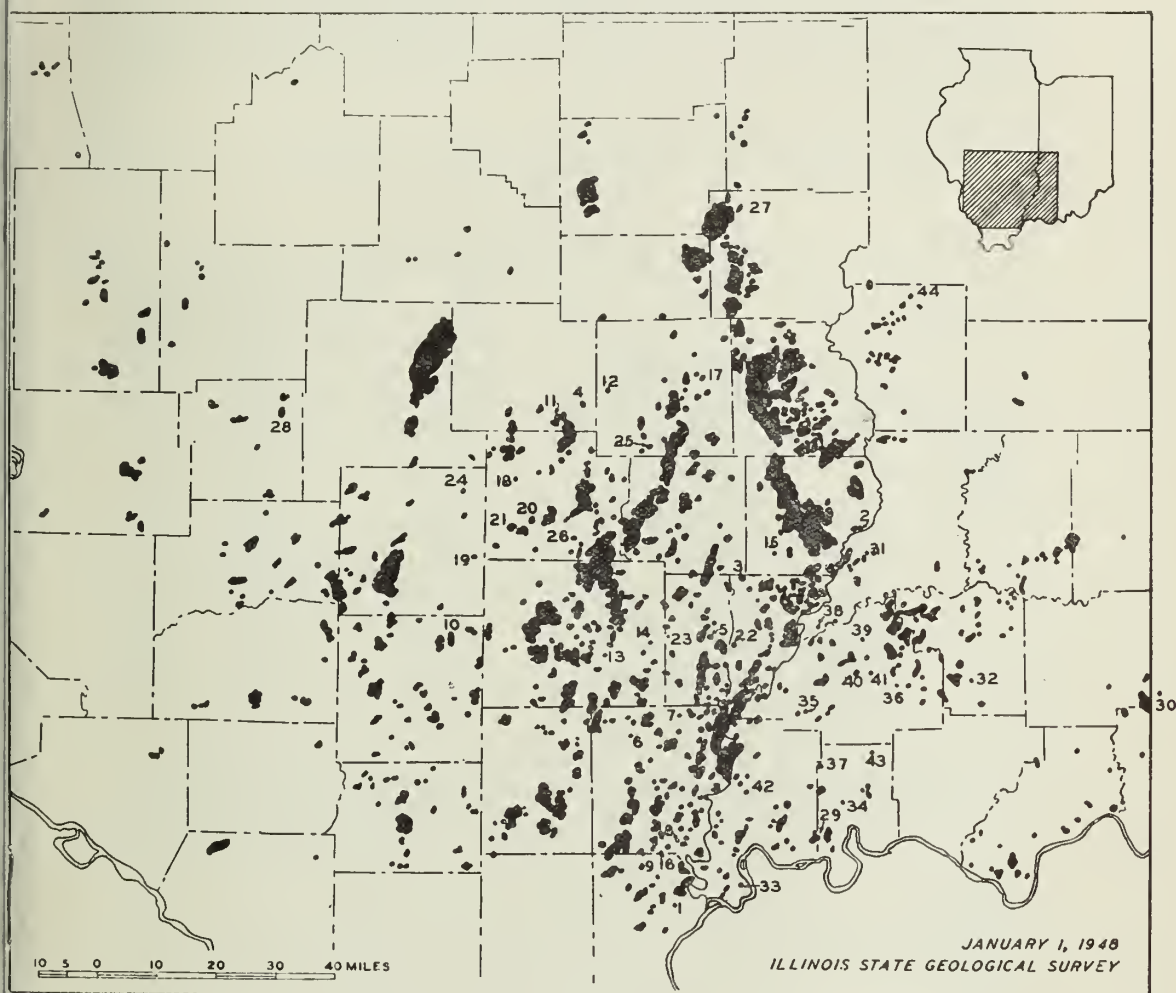


FIG. 1.—New pools discovered in 1947. All present and former oil- and gas-producing areas are shown in black. (See Tables I and VII for pool number identification.)

Depth to granite in this well was 2,221 feet, or an elevation of 1,401 feet below sea-level. The elevation of the top of the pre-Cambrian granite in a well 9 miles northwest, low on the north flank of the anticline, was 2,484 feet below sea-level, a difference of 1083 feet. Thus there appears to be a granite hill underlying the Pittsfield-Hadley anticline of considerably greater relief than that of the overlying sedimentary strata. This suggests that there may be granite hills under other major anticlinal structures of the Illinois area.

Some of the wells located in western Illinois (Table IV) were drilled in explora-

TABLE IV
SELECTED LIST OF DRY TESTS IN ILLINOIS IN 1947

Pool	County	Company and Farm	Location	Total Depth (Feet)	Deepest Formation	Depth to Top (Feet)
1.	Bond	H. Hoffman, G. Wilson "A" 3	24-4N-3W	2,460	Devonian	2,445
2.	Christian	Sun Oil, A. Ettinger 1	8-13N-1W	2,910	"Trenton"	2,788
3.	Clark	J. W. Menhall, Bubeck 2	11-9N-11W	2,580	Devonian	2,402
4.	Clark	J. W. Menhall, E. P. Daly 1	27-9N-11W	2,659	Devonian	2,478
5.	Bartleso West	P. Mosebach et al, C. Meyer 2	18-1N-3W	2,520	Devonian	2,446
6.	Boulder	Texas, Defend-Gray Comm. 1	35-3N-3W	3,813	"Trenton"	3,711
7.	Carlyle	Murphy Oil, Hemen 1	10-2N-3W	2,614	Devonian	2,518
8.	Mattoon	Blalock & Walters, Coles County Locker Co. 1	11-12N-7E	3,211	Devonian	3,172
9.	Mattoon	B. A. Baker, H. Hagen 1	1-12N-7E	3,181	Devonian	3,130
10.	Coles	H. Sanders et al, R. M. Childress 1-B	30-13N-11E	2,325	"Trenton"	2,134
11.	Coles	E. Zink, Bales 1	3-12N-9E	2,185	Devonian	2,114
12.	Douglas	Burkett & Farnham, A. Brock 1	7-15N-14W	859	Devonian	799
13.	Fayette	Nat'l. Assoc. Pet.-Ashland, J. M. Dugan 1	23-6N-1W	3,900	"Trenton"	3,737
14.	Hancock	D. E. Lambert, W. Griffith 1	26-7N-8W	1,102	St. Peter	977
15.	Jersey	T. R. Kerwin et al, Legate 1	2-6N-13W	2,680	Lamotte	2,670
16.	Macoupin	Sun Oil, C. C. Alford 1	3-9N-6W	2,552	Glenwood	2,536
17.	Madison	Texas, Hosto 1	18-5N-5W	2,755	Plattin	2,714
18.	Miletus	Nat'l. Assoc. Pet., Lacy 5	21-4N-4E	3,050	Clear Creek	3,787
19.	Montgomery	J. Reznik, Monke 1	4-7N-5W	2,600	"Trenton"	2,490
20.	Washington	L. V. Horton, B. Huck 1	16-15-2W	2,905	Devonian	2,876

TABLE V
WILDCAT WELLS DRILLED IN ILLINOIS IN 1947, CLASSIFIED BY METHOD OF LOCATION

Method of Location	Wildcat Near ^a		Wildcat Far ^b		Total Wildcats	Total Producers	Percentage Successful
	Total	Producers	Total	Producers			
Geology	296	69	169	22	465	91	19.5
Geophysics	1	0	2	0	3	0	0.0
Geology and Geophysics	12	0	26	6	38	6	15.8
Nonscientific	309	69	197	28	506	97	19.2
Unknown	3	0	23	0	26	0	0
	2	0	2	0	4	0	0
Total	314	69	222	28	536	97	18.1

^a One half to 2 miles from production.

^b More than 2 miles from production.

tion for additional Silurian coral reefs, like the one that is productive of oil in the Marine pool, Madison County. Although as yet no additional oil-bearing reefs have been located, there is still a large unexplored territory.⁶

⁶ Heinz A. Lowenstam, "Marine Pool, Madison County, Illinois, Silurian Reef Producer," *Struc. Typ. Amer. Oil Fields*, Vol. III, Amer. Assoc. Petrol. Geol. (1948), pp. 153-88.

METHODS OF EXPLORATION

The principal methods used in locating exploratory wells continued to be sub-surface geology and the reflection seismograph (see Table V). The amount of seismograph work in Illinois increased 25 per cent from 284 crew-weeks in 1946 to 354 crew-weeks in 1947.

TABLE VI
GEOPHYSICAL EXPLORATION BY MONTHS IN ILLINOIS IN 1947

Period (1947)	Seismograph (a) (b)	Gravity	Resistivity
Jan.	8-32	1-4	1-4
Feb.	8-32	1-4	1-4
Mar.	8-32	1-4	1-4
Apr.	7-28	2-6	1-4
May	8-32	2-8	1-4
June	8-30	2-8	1-4
July	7-28	2-8	1-4
Aug.	7-28	2-8	1-4
Sept.	7-28	2-8	1-4
Oct.	6-26	1-6	1-4
Nov.	6-24	1-4	1-4
Dec.	6-24	1-4	1-4

^a First figure indicates number of crews working.

^b Second figure indicates number of working weeks completed.

INDIANA

BY RALPH E. ESAREY

Drilling activity in Indiana was the greatest since the opening of the Eastern Interior basin. In all, 666 wells were drilled, of which 340 were producing field wells, and 24 were successful wildcats. In addition, 6 wells opened extensions to oil fields, and 8 wells discovered oil in deeper or shallower sands in present pro-

TABLE VII
DISCOVERY WELLS OF NEW POOLS IN INDIANA IN 1947

Pool	County	Company and Farm	Location	Total Depth (Feet)	Producing Formation
29. Belknap	Vanderburgh	G. Engle, Helfrich 1	18-6S-11W	1,872	Waltersburg
30. Birdseye East	Crawford	H. A. Kays, St. Clair 1	31-2S-2W	905	Salem
31. Cathlinett	Knox	Zink et al., Halter 1	8-2N-10W	1,885	Rosiclare
32. Coe	Pike	R. Halbert, Ayrshire Coll. 1	30-2S-7W	1,423	Ste. Genevieve
33. College North	Posey	Calvert & Willis, Hastings 1	10-8S-14W	2,337	Ste. Genevieve
34. Evansville	Vanderburgh	Calvert & Willis, Engli 1	2-6S-11W	895	Pennsylvanian ss
35. Fleener	Gibson	C. A. Lynch, Fleener 1	22-3S-12W	1,880	Waltersburg
36. Francisco South	Gibson	J. Reznik, Weber 1	30-2S-9W	1,942	Ste. Genevieve
37. Martin	Vanderburgh	O'Neal et al., Wassmer 1	6-5S-11W	2,206	Cypress
38. Orrville	Knox	H. E. Ledbetter et al., Elkins 1	12-1S-12W	2,167	Bethel
39. Patoka East	Gibson	J. Savage, Hall 1	10-1S-10W	1,921	Cypress
40. Princeton New	Gibson	Princeton Mining, McCarty 1	13-2S-11W	2,184	Ste. Genevieve
41. Princeton South	Gibson	Kingwood Oil, Steiner 1	16-2S-10W	2,155	Ste. Genevieve
42. Solitude	Posey	Indiana Farm Bur., Highman Est. 1	31-5S-13W	3,039	Palestine
43. Stacer	Vanderburgh	J. Reznik, Feil 1	28-4S-10W	2,214	Ste. Genevieve
44. Standard	Sullivan	A. S. Reid, Jewell 1	22-9N-9W	643	Pennsylvanian

ducing areas. A total of 16 new fields was discovered: 5 in Gibson County, 4 in Vanderburgh, 2 in Posey, 2 in Knox, 1 in Pike, 1 in Crawford, and 1 in Sullivan County. The opening of the Evansville field created some excitement when substantial amounts of oil were produced from the Pennsylvanian sands at 900 feet. In this field, 17 wells were completed by the end of the year.

A great many wildcats were drilled around the edge of the basin where Chester sands vary from 500 to 1500 feet in depth. Several of the productive spots were

TABLE VIII
DISCOVERY WELLS OF EXTENSIONS TO POOLS IN INDIANA IN 1947

<i>Pool</i>	<i>County</i>	<i>Company and Farm</i>	<i>Location</i>	<i>Total Depth (Feet)</i>	<i>Producing Formation</i>
Decker	Knox	K. D. Holland, Ruppel 1	1-1N-11W	1,883	McClosky
Mt. Carmel	Gibson	I. Van Tuyt, Putnam 1	26-1S-12W	2,111	Bethel
New Boston	Perry	C. A. Busick, Gayer 1	5-6S-3W	516	Jackson
Owensville North	Gibson	Deep Vein Coal, Davis 2	6-2S-11W	2,326	McClosky
Owensville North	Gibson	Superior, Hardiman 2	18-2S-11W	2,371	McClosky
Princeton North	Gibson	George & Wrather, Beloit 1	8-2S-10W	1,841	Cypress
Peru	Miami	J. Minneci, Butt 1	24-27N-4E	876	Trenton

TABLE IX
DISCOVERY WELLS OF ADDITIONAL PRODUCING ZONES IN POOLS IN INDIANA IN 1947

<i>Pool</i>	<i>County</i>	<i>Company and Farm</i>	<i>Location</i>	<i>Total Depth (Feet)</i>	<i>Producing Formation</i>
Dodds Bridge	Sullivan	M. Myers, Bradgon Heirs 1	5-8N-10W	590	Pennsylvanian
Hovey West	Posey	B. M. Heath, A. Gray Est. 1	36-7S-13W	2,107	Waltersburg
Mt. Carmel	Knox	H. E. Ledbetter, Steckler 7	22-1S-12W	2,095	Lower Ohara
Owensville	Gibson	Ashland-O'Neal, Bender 1	36-3S-12W	2,551	Bethel
Princeton North	Gibson	Princeton Mining, Hunt 1	8-2S-10W	1,944	Bethel
Rockport	Spencer	Port Rock Oil Co., Hayden 3-A	30-7S-6W	1,099	Cypress
Rockport	Spencer	D. Stinson, Axton 1	30-7S-6W	913	Tar Springs
Solitude	Posey	Indiana Farm Bur., M. Perry 2	31-5S-13W	3,016	McClosky
Springfield	Posey	Texas, Golden 1	19-15S-13W	2,126	Waltersburg
St. Thomas	Knox	E. Zink, Indiana Def.	19-2N-10W	1,662	Cypress

found in and around the old fields. The counties of Pike, Daviess, Sullivan, Spencer, Martin, Greene, and Warrick received more attention than in previous years. In seven of the new fields, oil was found in the Ste. Genevieve limestone, emphasizing the importance of that formation as a reservoir rock.

The number of gas wells reported during the year was 41, and all were producers. More than 4 million cubic feet of daily open flow was added to the gas production of the state by the opening of the four new fields. The Sun Oil Company opened a potential gas field in the Devonian limestone at 1,900 feet in Greene County, but the well was abandoned, eventually. The reported open flow was 2 million cubic feet per day. Another test may be drilled in the near future.

The "pocket" area (Posey, Vanderburgh, and Gibson counties) continued to be the most active from the standpoint of wells drilled and total number of completions. The Griffin field remained the largest producer, where 458 wells averaged 3,925 barrels per day throughout the year. The deepest tests made in the basin

were the Thomas No. 1 in Sullivan County which tested the St. Peter at depth of 4,328 feet, and the Bodine, No. 1, the deepest well stratigraphically, which was abandoned in the Shakopee dolomite at 2,417 feet in Fountain County. The pipeline runs for the year indicate that Indiana produced about 6,441,500 barrels of crude oil.

Outside the basin, a new strike in the old Trenton field near Peru, Miami County, caused a small flurry of activity. The field is an extension of an old productive area opened 50 years ago. Oil is produced from the Trenton limestone at 850 feet. The best well had an initial production of more than 100 barrels per day.

An additional pool producing from the Salem limestone was opened near Birdseye in Crawford County. It is an extension of the old Birdseye field abandoned many years ago. The top of the saturated zone is about 1,000 feet in depth. An interesting wildcat was drilled to the basement rock in Allen County, near Fort Wayne; the pre-Cambrian was reached at about 3,500 feet, without finding saturation in the overlying formations.

